

## G4V100-P-G

### Intel 845GV chipset Socket 478-based Intel<sup>®</sup> Mini-ITX board

#### PROCESSOR (Socket 478-based Intel<sup>®</sup>)

- Intel<sup>®</sup> Pentium<sup>®</sup> 4 processor with Hyper-Threading Technology
  - 533MHz system data bus
- Intel<sup>®</sup> Pentium<sup>®</sup> 4 processor
  - 533MHz/400MHz system data bus
- Intel<sup>®</sup> Celeron<sup>®</sup> processor
  - 400MHz system data bus

#### CHIPSET

- Intel<sup>®</sup> 845GV chipset
  - Intel<sup>®</sup> 845GV Graphics Memory Controller Hub (GMCH)
  - Intel<sup>®</sup> 82801DB I/O Controller Hub (ICH4)

#### SYSTEM MEMORY

- Two 184-pin DDR SDRAM DIMM sockets
- 2.5V unbuffered PC1600 (DDR200), PC2100 (DDR266), or 2700 (DDR333) DDR SDRAM DIMM
- Supports maximum of 2GB system memory using 64Mbit, 128Mbit, 256Mbit, or 512Mbit technology
  - Double-sided x16 DDR SDRAM DIMM in not supported

#### BIOS

- Award BIOS
- Windows<sup>®</sup> 98SE/2000/ME/XP Plug and Play Compatible
- Supports SCSI sequential boot-up
- Supports DMI 2.0 function
- 4Mbit flash memory

#### ENERGY EFFICIENT DESIGN

- Supports ACPI specification and OS Directed Power Management
- Supports ACPI STR (Suspend to RAM) function
- Wake-On-Events include:
  - Wake-On-PS/2 Keyboard/Mouse
  - Wake-On-USB Keyboard/Mouse
  - Wake-On-LAN
  - RTC timer to power-on the system
- System power management supported
- CPU stopped clock control
- Hardware supports SMI green mode
- Microsoft<sup>®</sup>/Intel<sup>®</sup> APM 1.2 compliant
- Soft Power supported - ACPI v1.0a specification
- AC power failure recovery

#### DAMAGE FREE INTELLIGENCE

- Monitors CPU/system temperature and overheat alarm
- Monitors 5VSB(V)/VBAT(V)/1.5V/3.3V/5V/±12V/CPU(V) voltages and failure alarm
- Monitors CPU/chassis/2<sup>nd</sup> fan speed and failure alarm
- Read back capability that displays temperature, voltage, and fan speed
- Watchdog timer function

#### ONBOARD GRAPHICS FEATURES

- Graphics Memory
  - Shares 512K/1MB/8MB of the system memory in DOS mode
  - Uses Dynamic Video Memory Technology (DVMT) in Windows mode
- Graphics Controller
  - Core frequency of 200MHz
  - 350MHz integrated 24-bit RAMDAC
  - Analog display up to 2048x1536 @ 60Hz refresh
  - High Quality 3D setup and render engine – Discrete, Triangles, Strips, and Fans
  - Per pixel perspective corrected texture mapping
  - Software DVD at 30fps, full screen
- 2D Graphics Features
  - Optimized 256-bit BLT engine
  - 32-bit alpha blended cursor
  - Programmable 3-color transparent cursor
- 3D Graphics Features
  - 200 megapixel/sec fill rate
  - Supports maximum 3D resolution: 1600x1200x32@85Hz
  - Flat and Gouraud shading
  - 16- and 24-bit Z-buffering and 16- and 24-bit W-buffering
  - Vertex and programmable pixel fogging and atmospheric effects
  - Double and triple render buffer
- Software drivers
  - Windows<sup>®</sup> 98SE/2000/ME/XP and Windows<sup>®</sup> NT<sup>®</sup> 4.0

#### LVDS TRANSMITTER

- Chrontek CH7017
- Supports scale up to 1600x1200 pixels
- 18-bit and 24-bit outputs
- 2D dither engine
- Support for second CRT DAC bypass mode
- Dual LVDS supporting pixel rates up to 330M pixels/sec when both 12-bit input ports are utilized together

#### ONBOARD AUDIO FEATURES

- Realtek ALC202A
- 18-bit stereo full-duplex codec with independent variable sampling rate
- High quality differential CD input
- True stereo line level outputs
- S/PDIF-out interface
- 2-channel audio output

#### ONBOARD LAN FEATURES

- Uses 82562EM fast Ethernet controller
- IEEE 802.3, 10BASE-T/100BASE-TX compliant physical layer interface
- IEEE 802.3 Auto-negotiation
- Digital Adaptive Equalization control
- Link status interrupt capability
- 10BASE-T auto-polarity correction
- Alert on LAN functionality
- LAN Connect I/F
- 1:1 transmit transformer ratio support
- Automatic detection of "unplugged mode"

#### IDE INTERFACE

- Supports ATA/33, ATA/66 and ATA/100 hard drives
- PIO Mode 4 Enhanced IDE (data transfer rate up to 14MB/sec)

#### REAR PANEL I/O PORTS

- 2 USB 2.0/1.1 ports
- 1 RJ45 LAN port
- 2 DB-9 serial ports
- 1 DB-15 VGA port
- 1 DB-25 parallel port
- 1 mini-DIN-6 PS/2 mouse port
- 1 mini-DIN-6 PS/2 keyboard port
- 3 audio jacks: line-out, line-in and mic-in

#### I/O CONNECTORS

- 2 connectors for 4 additional external USB 2.0/1.1 ports
- 1 connector for COM 3 (RS232 or LVDS)
- 1 connector for COM 4 (RS232 or RS485)
- 1 40-pin connector for LVDS LCD panel
- 1 LCD/inverter power connector
- 1 LCD brightness control connector
- 1 front audio connector for line-out and mic-in jacks
- 1 CD-in internal audio connector
- 1 S/PDIF-out connector
- 1 connector for IrDA interface
- 1 40-pin IDE 1 connector for 3.5" HDD
- 1 44-pin IDE 2 connector for 2.5" HDD
- 1 floppy connector (FPC connector type)
- 2 ATX power supply connectors
- 1 Wake-On-LAN connector
- 1 chassis open connector
- 3 fan connectors

#### EXPANSION SLOTS

- 1 PCI slot for PCI expansion card or Riser Card for 1, 2, or 3 PCI slots (for low profile PCI card only)

#### COMPATIBILITY

- PCI 2.2 and AC '97 compliant

#### CIRCUIT BOARD (PCB)

- 6 layers, mini-ITX form factor
- 17 cm (6.7") x 17 cm (6.7")

#### SAFETY

- UL, cUL, FCC Class B, CE